



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: GILL et al. Examiner: Unassigned  
Serial No.: 10/629,323 Group Art Unit: 2651  
Filed: July 29, 2003 Docket No.: HSJ920030016US3  
(HITG.055PA)  
Title: METHOD AND APPARATUS FOR ENHANCING THERMAL  
STABILITY, IMPROVING BIASING AND REDUCING DAMAGE FROM  
ELECTROSTATIC DISCHARGE IN SELF-PINNED ABUTTED  
JUNCTION HEADS HAVING A SECOND HARD BIAS LAYER  
DISPOSED AWAY FROM THE FREE LAYER

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence and the papers, as described hereinabove, are being deposited in the United States Postal Service, as first class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on November 13, 2003.

By: Kathleen McDevitt  
Kathleen McDevitt

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT (37 C.F.R. §1.97(b))

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted either within three months of the filing date or before the first Office Action of the above-identified application. Accordingly, no fee is due for consideration of the items listed on the enclosed Form 1449.

In accordance with 37 C.F.R. §1.98(a)(2), a copy of each document or other information listed on the enclosed Form 1449 is provided.

Please note that any notations or markings on the attached documents do not reflect particular relevance, or lack thereof, to the present application, nor were they necessarily made by anyone affiliated with the prosecution of the present application.

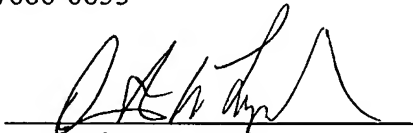
No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

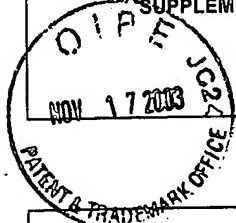
Respectfully submitted,

Crawford Maunu PLLC  
1270 Northland Drive  
Suite 390  
St. Paul, MN 55120  
651/686-6633

Date: November 12, 2003

By:   
David W. Lynch  
Reg. No. 36,204

FORM 1449* SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number: HSJ920030016US3	Application Number: 10/629,323
	Applicant: Gill <i>et al.</i>	
	Filing Date: 7/29/2003	Group Art Unit: 2651



**U.S. PATENT DOCUMENTS**

[illegible]

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

	February 2002	Liao, C.C.; Ho, C.H.; Huang, R. -T.; Chen, F.-R.; Kai, J.J.; Chen, L.-C.; Lin, M.-T.; and Yao, Y.D., "Thermal Stability Study of the Insulator Layer in NiFe/CoFe/Al <sub>2</sub> O <sub>3</sub> /Co Spin-Dependent Tunnel Junction," <i>Journal of Magnetism and Magnetic Materials</i> , Vol. 239, No. 1-3, pp 116-119, February 2002.
	May 2000	Cardoso, S.; Freitas, P.P.; de Jesus, C.; and Soares, J.C., "High Thermal Stability Tunnel Junctions," <i>Journal of Applied Physics</i> , Vol. 87, No. 9, pp 6058-60, May 2000.
	June 2001	Cardoso, S.; Freitas, P.P.; Zhang, Z.G.; Wei, P.; Barradas, N.; and Soares, J.C., "Electrode Roughness and Interfacial Mixing Effects on the Tunnel Junction Thermal Stability," <i>Journal of Applied Physics</i> , Vol. 89, No. 11, pp 6650-6652, June 2001.

EXAMINER	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	